



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,766	10/19/2004	Peter Clive Bridges	04-870	6029
20306	7590	12/17/2008		
MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP				
300 S. WACKER DRIVE				
32ND FLOOR				
CHICAGO, IL 60606				
EXAMINER				
OSTRUP, CLINTON T				
ART UNIT		PAPER NUMBER		
3771				
MAIL DATE		DELIVERY MODE		
12/17/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/511,766

Applicant(s)

BRIDGES ET AL.

Examiner

CLINTON OSTRUP

Art Unit

3771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to the applicant's response filed February 26, 2008. Claims 1-7 are pending in this application.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The claims recite "a seal adapted to seal against the periphery of the user's face when worn" however, a "seal" according to the specification is the seal (12) shown in figure 4. See: applicant's specification page 4, lines 19-22 wherein the seal is described as "The periphery of the face plate 7 is profiled to match the contour of the ring 4 and carries a seal 12 (FIG. 4) to ensure a gas-tight connection between those elements when attached." Thus, the specification lacks proper antecedent basis for a first sub-assembly with a "seal adapted to seal against the periphery of a user's face when worn" as claimed.

3. Appropriate correction is required and applicant is reminded to be consistent in their terminology.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quilter et al. US 2,861,568 in view of Tischer et al. US 6,328,031 B1.

As to claim 1, Quilter in his specification and drawings discloses a respirator assembly comprising: a first sub-assembly (15) adapted to be worn on the head (see fig.2) and including a seal (13) adapted to seal against the periphery of the user's face when worn (see col.2, lines 26-36).

Quilter further discloses a second sub-assembly (fig. 9, 26, 64), however lacks the second sub-assembly (fig.9, 26, 64) separable from the first sub-assembly but selectively co-operable therewith. However, Tischer in a protective head gear teaches a first subassembly (fig.13, 113) and a second subassembly (fig.13, 112) that are detachably connected to each other (see col.6, lines 10-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Quilter in order to make the subassemblies separable for the purposes of preventing direct exposure of wearer's head to high heat environment as taught by Tischer (see col.2, lines 35-40).

Quilter additionally discloses the second sub-assembly comprising a face piece adapted to co-operate with the first sub-assembly to define therewith a facial cavity (space between the seal 13 and the mask 64, see fig.9, see also "dead space" in col.6, lines 3-6, which reads on "facial cavity") bounded by said seal (see fig.9), an inlet (68) connectable to a source of breathing gas for supply to the user and an outlet (67) for the exhaustion of exhaled gas from the user.

As to claim 2, Tischer in figure 13 shows that the first and second sub-assemblies can be completely separable, thus allowing the first sub-assembly to be

worn alone. Tischer in figure 12 shows the second sub-assembly being demountably attachable to the first sub-assembly.

As to claim 3, Quilter discloses the first sub-assembly comprises headgear (15) including a substantially rigid ring (25) structure adapted to be juxtaposed to the user's face (see fig.9) when the headgear is donned and from which said seal extends to engage around the periphery of the user's face (see fig.97), the second sub-assembly being configured to be mounted to said ring structure (see fig.9, 26 connecting 25). Quilter however lacks at least one releasable fastener. However, Tischer teaches a face (fig.3, 58) and hood (fig.3, 30) assembly that can be joined by a releasable fastener (fig.3, 62). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Quilter in order to add a releasable fastener for the purposes of allowing separable connection between the two sub-assemblies as taught by Tischer.

As to claim 4, Quilter discloses the second sub-assembly is articulated to the first sub-assembly (see fig.9).

As to claim 5, Quilter discloses the first sub-assembly comprises headgear in the form of a flexible hood of air-permeable material (hood 1 is constructed from "other fabric", see col.2, lines 35-37, and "other fabric" broadly reads on breathable/air-permeable fabric).

As to claim 6, Quilter discloses the second sub-assembly includes an oronasal mask (64) to be disposed within said facial cavity.

As to claim 7, Quilter discloses said face piece includes a lens portion (26), Quilter however lacks "demountable" lens. However, Tischer teaches detachable face-piece as applied for claim 1. Tischer teaches the face-piece (112) has a clear plastic face plate (114) (see col.6 lines 20 and 21). Tischer's face plate is equivalent to a lens portion since the clear plastic construction of the face plate (114) would inherently allow wearer to see through the face plate (114). Thus, Tischer further teaches demountable lens.

Response to Arguments

6. Applicant's arguments filed February 26, 2008 have been fully considered but they are not persuasive.

Applicant argues that the combined references do not teach a second sub-assembly that comprises an inlet connectable to a source of breathing gas for supply to the user. The examiner respectfully disagrees.

7. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case, First, Quilter discloses an aperture (66 of figure 9) in a mask and Tischer teaches an inlet connectable to a source of breathing gas and an outlet through an aperture (118) of a mask. See: col. 6, lines 23-25 and figure 2 of Tischer.

Regarding applicant argument that the examiner's grounds for combining the references is faulty, the examiner respectfully disagrees. Applicant argues that the

purposes of the Tischer and Quilter devices are different because the oxygen supply hood disclosed by Tischer is aimed at providing a fire fighting hood; whereas oxygen supply helmet Quilter is drawn to a pressurized helmet for aviator at high altitudes and it is not the intention of Quilter that the helmet should ever be worn without the frontal mask as Quilter permanently joins the mask to the cover. Thus, applicant argues that it would have been entirely contrary to the teachings of Quilter to modify the structure to make these compartments separate and to modify the structure in any way due to high heat concerns.

The examiner respectfully disagrees, as the devices are related because they are both drawn to oxygen delivery systems to be used during low oxygen concentrations. Moreover, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references.

Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In re Keller, 642 F. 2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In this regard, a conclusion of obviousness may be based on common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference. In re Bozek, 416 F. 2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

In the instant case, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Quilter in order to

make the subassemblies separable for the purposes of preventing direct exposure of wearer's head to high heat environment as taught by Tischer (see col.2, lines 35-40).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Colley (3,149,632); Schegerin (5,653,225); Tenna (5,080,092) and Bonhomme et al., (2002/0134381) which are to drawn to face masks with detachable components.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CLINTON OSTRUP whose telephone number is (571)272-5559. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Danton DeMille/
Primary Examiner

/Clinton Ostrup/
Examiner, Art Unit 3771